

METHOD FOR PRODUCING ENVIRONMENT-PROTECTIVE PAPER BASED PLASTIC MATERIAL

FIELD OF THE INVENTION

- 5 [0001] This invention relates generally to a method for producing environment-protective paper based plastic material, particularly to a method that mixes and dries the waste paper to form a paper based plastic material, which would become sound hard after molded to render stone-like natural impressions.

BACKGROUND OF THE INVENTION

- 10 [0002] Many decorative articles used for promotion of a landscape, for example an artificial mountain, are usually elaborated by binding together some stuffs of plastics, rubber, or glass fiber, etc. However, after being weathered for a long time, the stiffened and fractured decorative stuffs will probably deteriorate the environments in the case of lacking a proper disposal, for they are undecomposable
15 by the nature.

[0003] In considering the environment protection, the waste paper is undoubtedly a non-negligible part for recollection and reproduction, and that is what this invention is supposed to tackle with.

SUMMARY OF THE INVENTION

- 20 [0004] The primary object of this invention is to provide a method for producing environment-protective paper based plastic material, which might be used to form diversified products, such as a doll statue or a flower holder which is as hard as a rock. Because the product is paper based (more exactly speaking, it is made from waste paper), hence it can be well decomposed by the nature without incurring any
25 pollution problems when it is discarded.

[0005] Another object of this invention is to provide a low-cost method for fabricating paper based plastic material by blending some additives in specified ratio. After a product is dried and cured, it would become relatively hard to make a contrast with what it was. Thus, the paper based plastic material made conforming to the environment-protection concept according to the method of this invention can be applied widely for forming general construction decorative articles or indoor decorative articles at a lower cost than conventional stone or plastic materials.

[0006] In order to realize above objects, the method of this invention is proposed to treat recollected waste paper by dipping, crashing, and dewatering to make it become pulp, then add to the pulp with mucilage and plaster in volume ratio of 2.4~1.6: 1.2~0.8: 0.3~0.7 and agitate it to become a soft plastic material for people to knead freely and form into a profile desired or stuff it into a mold module with hands time after time. Then, after being dried and cured, a straightforward stony decorative article, such as an indoor doll statue or an outdoor flower holder, can be obtained.

[0007] For more detailed information regarding advantages or features of this invention, at least an example of preferred embodiment will be fully described below with reference to the annexed drawings.

20 BRIEF DESCRIPTION OF THE DRAWINGS

[0008] The related drawings in connection with the detailed description of this invention to be made later are described briefly as follows, in which:

Fig. 1 is a flowchart of a fabrication process of this invention;

Fig. 2 is a three-dimensional view of a completed specimen of this invention;

Fig. 3 is a flowchart of another fabrication process of this invention; and

Fig. 4 is a schematic view showing a specimen of this invention completed by way of kneading with hands.

DETAILED DESCRIPTION OF THE INVENTION

5 [0009] A method for producing environment-protective paper based plastic material of this invention is classified into two categories, namely: a first method of using auxiliary moldings and a second method of kneading with hands.

[0010] The first method (see the flowchart in Fig. 1) includes the following steps:

10 (a) A first step is to assort the recollected waste paper (such as waste papers and waste corrugated paper boxes), recombine it into combinations according to status of green castings, then dip it in water, crash, and dewater to form the desired pulp. Only the recollected waste paper is qualified to meet the quality requirements.

15 (b) A second step is to mix the pulp with mucilage and plaster in a volume ratio of 2.4~1.6:1.2~0.8:0.3~0.7 uniformly to form a plastic material, in which the ratio of 2:1:0.5 is considered the most optimum mixing ratio. The composition of the mucilage might be slightly adjusted or altered according to different site conditions where the product is to be applied, for example, a resin or
20 a blended glue including corn starch plus wheat starch or sweet potato starch for indoor use; or, a waterproof binder for outdoor use, such that the lifetime of a product made by this method can be ensured though it is dependent upon the doped quantity of the mucilage. In addition, a small amount of stone powder might be added for increasing mass of the product.

25 (c) A third step is to stuff the plastic material with hands into a mold

module prepared time after time until a preset tightness is reached. The mold module could be made in one or more shapes.

(d) A fourth step is to shake out the mold module after slightly dried, then mend and dry again if necessary or combine parts together if required.

5 (e) A fifth step is to wait until the product is dried throughout to obtain a designed decorative article as hard as a stone-made piece shown in Fig. 2.

[0011] Moreover, for the sake of enriching color variations and heightening sightliness of the product, dyestuff could be added in the dipping or crashing process in the first step (a) to avoid the monotonous feeling. Or, a user might color
10 the pulp before hand, then blend it with the mucilage and the plaster to form a colored plastic material. Alternatively, the user might select to stuff the plastic material in different colors into different places of the mold module.

[0012] The second method (shown in Fig. 3) is about the same in its preceding process with the first step (a) and second step (b) of the first method, except that:

15 (c) A third step is to shape a product by kneading with hands instead of molding.

(d) A fourth step is to wait until the product is dried throughout for obtaining a decorative article (shown in Fig. 4).

[0013] In short, the method of this invention is to blend the recollected and
20 treated waste paper with mucilage and plaster in a specified ratio for forming diversified decorative articles with rocky rigidity and impression, and it is particularly important that the product is decomposable by the nature without polluting our environments if discarded.

[0014] In the above described, at least one preferred embodiment has been
25 described in detail with reference to the drawings annexed, and it is apparent that

numerous variations or modifications may be made without departing from the true spirit and scope thereof, as set forth in the claims below.